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HÖFFDING ON THE RELATION OF THE MIND TO THE BODY.

FEW topics are of greater speculative or indeed practical interest than that of the relation of the body to the mind. Rarely has the subject been treated with such perspicuity and at the same time with such candor and avoidance of hasty dogmatism as by Professor Harald Höffding, of Copenhagen, in his "Psychology" (translated into German from the Danish and published in Leipsic, Reisland). A leading American professor of philosophy remarked to me recently that this for its size (the volume contains 452 pages) was the best all-around work on Psychology; and an examination of the section entitled *Seele und Körper* (Mind and Body) certainly gives countenance to the statement.

Professor Höffding does not indeed oppose himself to metaphysical speculation; he believes that the human mind will never consent to being shut out from the task of searching after the ultimate principles of the universe, of which it is a part. But his standpoint in this work is the purely empirical one, as one's standpoint must be in every positive science. Positive science deals with the facts of experience; metaphysics with their ultimate explanation. He regards it as a misfortune to confuse the two, as popular thinking in psychology does; and scientific thinking in this realm is characterised by the effort to avoid the confusion and keep solely to the facts of observation and experience. Accordingly both materialism and spiritualism are excluded from the field—each theory involving a transcending of the realm of experience, i. e., being metaphysical.

There are two subdivisions of the realm of experience according to Professor Höffding,—one coextensive with psychical phenomena, such as feelings, thoughts, and volitions, the other with physical phenomena, i. e., with what moves in space. They may be called respectively inner experience and outer experience. Each must be grasped in its distinct features; and only after doing so can we feel the *problem* involved in the question of their relation to or connection with one another. For it happens that one set of outer experiences stands in an indisputably peculiar relation to the phenomena of consciousness, namely, the set which we describe by the term “body” and, more particularly, by that of “nervous system” or “brain.” Much of what we call the physical world stands in relation to consciousness as the thing known to the knower; but a part of the physical world (i. e., the body or brain) seems a part of the knower as well—a body or nervous system of some kind seems an indispensable requirement or at least concomitant of anything like feeling, or thought, or act of volition.

Now, different as the movements of the nervous system, the processes of the brain are from the phenomena of consciousness, there are a number of resemblances between them. Professor Höffding specifies six: (1) As the nervous system is the central, unifying organ of the body, so does consciousness bring together into a unity all the varied phenomena of experience, scattered though they be in time and space. (2) Just as a change is necessary that consciousness may be awakened, (an absence of contrasts tending in the direction of unconsciousness,) so a stimulus is necessary that the nerves may act. (3) A stimulus may produce a commotion in the nervous system out of all proportion to its immediate efficacy, just as a spark may act on a magazine of powder; so a simple sensation may set in motion a whole train of ideas and emotions, owing to the complicated structure and multitudinous inner relations of consciousness. (4) The movements of the body are slow in proportion as they are conscious; now the nerves which appear to be closely related to consciousness act more slowly than those which direct purely physiological (i. e., unconscious) processes. (5) The lower nerve-centres form a system comparatively independent of the

higher ones ; corresponding to this is the fact that many bodily processes go on unconsciously and only make us aware of them when the circumstances attending them are particularly favorable or unfavorable. The *consciousness* of the physical state corresponds to the excitation of the higher nerve-centres. Similarly the action of the will has its physiological counterpart ; in the struggle between "the flesh and the spirit," the lower nerve-centres with their reflex and involuntary actions correspond to the flesh, the higher centres to the spirit. (6) The construction of the nervous system is similar to the constitution of consciousness ; just as consciousness is at once receptive and active, with more or less of intervening reflection or thought, so the nervous system has both sensory and motor organs, with an intervening sphere.

Not only are there these formal resemblances, there is a real connection, according to Professor Höffding, as is shown by the fact that with the evolution of the nervous system go higher and higher forms of consciousness, that irritation on the surface of an organism must be communicated to the brain that conscious sensations may arise, and that when arterial blood fails to reach the brain unconsciousness supervenes. What hypothesis do these facts conduct to us ? All of them must be born in mind that any special hypothesis may be legitimated. There are only four possibilities : (1) Either consciousness and the brain, mind and body, act upon one another as two separate things or substances ; (2) or the mind is only a form or product of the body ; (3) or the body is only a form or product of one or more mental substances ; (4) or mind and body, consciousness and the brain, grow and develop as different manifestations of one and the same substance. It must be admitted that the author at this point somewhat deserts the empirical standpoint to which he declared at the outset that he should keep. The *facts* of correspondence or parallelism are all that come within the realm of experience ; their *explanation* must be more or less a matter of inference and theoretical construction and involves a departure in the direction of metaphysics. Professor Höffding is aware of this and says that these hypotheses belong to the border-land between positive science and metaphysics. Moreover, he confesses

that any conclusion he may reach will have only a provisional value and may need revision, before it can serve as a final part of a philosophical system. He will, however, follow as closely as possible the leadings of experience, as indeed he says we should do in all metaphysical speculation.

In considering the first hypothesis, (namely, that mind and body act on one another as two things,) Professor Höffding shows that it is inconsistent with the law of the conservation of energy. For, at the point where the nervous process is converted into mental activity, one sum of physical energy would disappear without being replaced by another sum of the same kind. As matter of fact no disappearance of energy takes place on account of the arising of a conscious state. The chain of psychical causation is not broken; its completeness no more suffers than if states of consciousness did not arise at all. Nor on the other hand does consciousness affect the sum of physical energy; it is hardly conceivable that it should even change the *direction* of such energy (the sum supposably remaining constant, as is sometimes held), since to do this it must itself become a physical force. Moreover, if there is a relation of cause and effect between the brain and consciousness it would seem as if an interval of time must elapse between the process in the brain and the rising of the conscious state, a view to which the teachings of physiology lend no likelihood.

The second hypothesis regards matter as the real or actual thing and mind as an effect or form of it. Such materialism is certainly older than the now prevalent doctrine of the interaction of two distinct things. Homer and the earliest Greek philosophers held to it. Similar views prevailed among the early Christian fathers before Augustine. Modern materialists, however, regard the mind, not in the earlier fashion as semi-corporeal, but as a function or form of the corporeal. Yet when we closely consider the matter, we find that to conceive of the function of a bodily organ is simply to conceive of that organ as in activity. As Goethe said, "Function is das Dasein in Thätigkeit gedacht." But a bodily organ in activity is just as much corporeal as one at rest, and anything without corporeal attributes can no more be the function of such

an organ than it can be the organ itself. The conception of function (in the physiological sense) as truly as that of matter implies something that exists in spacial form ; while thoughts and feelings are without spacial form.

In dealing with the third hypothesis, (namely, that body is a form or product of mind,) Professor Höffding does not so much criticise it as explain a modified and interesting form in which Lotze held it. It is not, however, the view which he adopts.

To the fourth hypothesis he gives his adhesion. The parallel and proportional relations between consciousness and brain-activity point, according to him, to an underlying identity between the two. One and the same principle, he says, has found its expression in a two-fold form. The physical interaction between the elements of which the nervous system is composed, is an outward form of the inner ideal unity of consciousness. What we immediately experience as thoughts, feelings, volitions, has its physical representation in certain brain-processes, which as such are under the law of the conservation of energy, though this law has no application to the relation between brain-processes *and* consciousness. It is as if one and the same content were expressed in two languages.

This conclusion, however, he repeats, is but an empirical formula and has provisional value only. One substance, he says, acts in both consciousness and the bodily organism, but what kind of a substance is this, and why does it have this twofold form of manifestation? These are questions, he replies, beyond the reach of our knowledge. We can simply make a statement which seems to be required by the facts, namely, that the same thing which lives, grows, and takes on form in the outward world, apprehends itself inwardly as thinking, feeling, and willing. No opinion is thereby ventured as to whether mind or matter is the more original form of existence. By no means is metaphysical speculation upon this question excluded. The hypothesis of identity (for so Professor Höffding terms it) is consistent with philosophical idealism and also with the view that the innermost nature of being is not identical with consciousness. He simply claims for it that it is the most natural conclusion with regard to the relation between two

empirical sciences, physiology and psychology. These sciences, according to the hypothesis, treat of the same material viewed from two different sides, and there can be no more conflict between them than between one person who looks on the convex side of a circle and another who looks on the concave side (to borrow an illustration used by Fechner).

On another occasion I may give my own views, and content myself now with saying that I have followed with the greatest interest and with much (if not unlimited) satisfaction the treatment of the subject at the hands of the genial, large-minded Danish professor.

W. M. SALTER.